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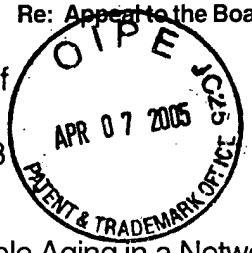
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences



In re PATENT application of KANURI et al.

Group Art Unit: 2663

Application No. 09/519,848

Examiner: GEORGE, Keith M.

Filed: March 6, 2000

Title: Selective Address Table Aging in a Network Switch Based on Application State Determined from a Received Data Packet

Docket : 95-307

Date: April 7, 2005

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1 ☐ **NOTICE OF APPEAL**: Applicant hereby appeals to the Board of Patent Appeals and Interferences from the decision (not Advisory Action) dated January 15, 2004 of the Examiner twice/finally rejecting claims 1, 2, 8-11

2 ☐ **BRIEF** on appeal in this application attached in triplicate.

3 ☐ An **ORAL HEARING** is respectfully requested under Rule 194 (due two months after Examiner's Answer -- unextendable).

4 ☒ Reply Brief is attached in triplicate (due two months after Examiner's Answer -- unextendable).

5. **FEE CALCULATION:**		Large/Small Entity	
If box 1 above is X'd, see box 12 below first and decide: . . . . . enter		$330/165*	$
If box 2 above is X'd, see box 12 below first and decide: . . . . . enter		$330/165*	$
If box 3 above is X'd, see box 12 below first and decide: . . . . . enter		$290/145*	$
If box 4 above is X'd, ... enter nothing		- 0 - (no fee)	
6. Original due date: June 15, 2004			
7. **Petition is hereby made** to extend the original due date to cover the date this response is filed for which the requisite fee is attached	(1 mo) $110/$55 (2mos) $420/$210 (3mos) $950/$475 (4mos) $1480/$740	+	
8. Enter any previous extension fee paid [ ] previously since above original due date (item 6); [ ] with concurrently filed amendment		-	
9. **Subtract line8 from line7 and enter: Total Extension Fee**			+$0
10. **TOTAL FEE ATTACHED =**			**$ 0**

11. ☐ *Fee NOT required if/since paid in prior appeal in which the Board of Patent Appeals and Interferences did not render a decision on the merits.

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order No. 50-0687 / 95-307 for which purpose a duplicate copy of this sheet is attached. **This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal form is filed**

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Customer No. 20736

Docket No.: 95-307 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	
KANURI	:	
Serial No.: 09/519,848	:	Group Art Unit: 2663
Filed: March 6, 2000	:	Examiner: GEORGE, Keith M.

For: SELECTIVE ADDRESS TABLE AGING IN A NETWORK SWITCH BASED ON APPLICATION STATE DETERMINED FROM A RECEIVED DATA PACKET

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Sir:

In response to the Examiner's Answer mailed February 8, 2005, Appellant submits the following reply.

Status of Claims

Appellant acknowledges with appreciation that the rejection of claim 2 has been withdrawn. Hence, claims 1 and 8-11 are appealed.

Applicant's Reply to Examiner's Argument

Each of the independent claims 1 and 10 specify "determining an ***application state*** for a prescribed ***network application*** from a received layer 2 data packet" (the exact language of claim 10 is "determining an application state for a detected one of a plurality of prescribed network

applications ....."). The Examiner's Answer, however demonstrates a blatant disregard for distinguishing between the claimed ***application state*** of a prescribed ***network application*** (illustrated at page 7, lines 28-29 as HTTP, SNMP, FTP, Telnet) executed by two end nodes, and the disclosed **node state** of the network node having sent the packet.

In particular, the Examiner's position is factually and legally flawed because it improperly equates the determined state of a **network node** (determined based on reception of layer 2 packets from that node) with the claimed determined ***application state*** of the ***prescribed network application*** that is executed within the network node. As described below, reception of a data packet (as described in Hoffman) identifies only the presence of the network node (i.e., that the network node is "active"), and does not result in a determination of an ***application state*** of a ***prescribed network application*** that is executed within the network node.

The Examiner asserts on page 3 in his Grounds of Rejection that the mere storage of layer 2 information containing "information relating to source and destination aging" is sufficient to provide an unequivocal disclosure of the claimed "determining an ***application state*** for a prescribed ***network application*** from a received layer 2 data packet":

> Destination aging in the network element indicates which layer 2 and layer 3 entries are active (determine an application state [sic]). The information implements in accordance with IEEE standard 802.1d type address aging (delete an address entry from a network switch address table based on the application [sic] state)....

The Examiner also asserts on page 4 that:

> Hoffman clearly teaches that source aging information indicates whether the source is active or not. In a preferred implementation, this information is updated by the

> forwarding logic every time the layer 2 source address is matched. Destination aging in the network element indicates which layer 2 and layer 3 entries are active (column 16, lines 44-51).

Hoffman describes that the source aging information indicates whether the source is active or not. Hoffman explicitly specifies that the aging information is to identify whether the network node having transmitted the packet is active:

> Source aging information indicates **whether the source is active or not**. In a preferred implementation, this information is updated by the forwarding logic 52 every time the layer 2 source address is matched. The information implements in accordance with IEEE standard 802.1d type address aging.
>
> (Col. 16, lines 43-45).

Consequently, the source aging information indicates merely whether the **source network node** is active.

However, the Examiner is ignoring the more critical description of Hoffman that distinguishes between layer 2/layer 3 addressing and execution of ***applications*** at higher layers by further asserting on page 4 that:

> It is clear from the teachings of Hoffman that when the layer 2 source address is matched, the *state* of the source (application) [sic!] is active and therefore the application state can be determined from the layer 2 entries.

This assertion by the Examiner has no rational basis in fact or law: the claims explicitly specify *application state **for a prescribed network application***. The claims do not specify "the state of the source", as urged by the Examiner. A node cannot initiate a prescribed network application (Layer 7) until a layer 2 link has been established; further, network nodes can maintain link connectivity even though the network node (e.g., laptop computer) is in an idle

state. Hence, a source node and destination node can transmit layer 2 packets without executing any network application whatsoever!

Further, the Examiner's argument fails to recognize that a single end station may be executing multiple network applications (recited in claim 10 as "one of a plurality of ***prescribed network applications***"): determining whether the source is "active" (ON or OFF) does not provide sufficient information to identify one of **multiple possible states** for **multiple network applications** that may be executed by the network node.

Even Hoffman recognizes that mere reception of a layer 2/ layer 3 packet does not provide information regarding applications executed between source and destination end stations in a network:

> Layer 4, the transport layer, provides application programs such as an electronic mail program with a "port address" which the application can use to interface with the data link layer. *A key difference between the transport layer and the lower layers is that an **application on a source end station** can carry out a conversation with **a similar application on a destination end station** anywhere in the network*; whereas the lower layers carry on conversations with end stations which are its inunediate [sic, should be "immediate"] neighbors in the network.
>
> (Col. 2, lines 27-36).

Hence, even Hoffman acknowledges a distinction between "conversations" between ***applications*** executed by source and destination end stations anywhere in the network and conversations between the immediate neighboring end stations.

In fact, there is no reference whatsoever in Hoffman of any "state", let alone any ***application state***, as claimed.

The weakness of the Examiner's argument becomes even more apparent upon reviewing the Examiner's Answer on pages 4-5: the Examiner evades the argument that Hoffman is unable to determine the application state because the relevant information is never presented to the class logic. The Examiner is forced to rely on his unsupported premise that "source" is the same as the claimed ***application state*** ("[a]s has been clearly stated above [sic], Hoffman teaches that source aging information indicates whether the source (application) [sic] is active or not").

The fallacy of the Examiner's argument is best presented on page 5:

> If a data packet is received then the application state is active, if it is not received it is inactive.

This statement begs the question of (1) *how often does the application need to transmit a packet in order for the application to be considered active* (applications require processing time before outputting a response, and surely cannot be considered "inactive" merely because they have not yet output a packet); (2) *if a source node is executing multiple applications, does a packet output by one application constitute an active status for all the multiple applications?*; (3) *if a layer 2 idle packet is output by an Ethernet Interface of the source node (and not any "application"), how can any application state be ascertained as "active"?*

As apparent from the foregoing, the Examiner fails to appreciate the teachings of Hoffman that the disclosed address aging only identifies whether there is a match between a layer 2 address and a layer 3 address. Each of the claims, however, specify that the ***application state*** is determined ***for a prescribed network application***.

Hence, the Examiner has failed to demonstrate that Hoffman discloses each and every

element of the claim. See MPEP 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "Anticipation cannot be predicated on teachings in the reference which are vague or based on conjecture." Studiengesellschaft Kohle mbH v. Dart Industries, Inc., 549 F. Supp. 716, 216 USPQ 381 (D. Del. 1982), aff'd., 726 F.2d 724, 220 USPQ 841 (Fed. Cir. 1984).

For these and other reasons, the rejection of claims 1 and 10 should be reversed.

Regarding claim 10, the Examiner on page 5 of the Answer validates Appellant's argument that Hoffman does not disclose or suggest a plurality of ***network switch ports***, "each including a packet classifier configured for determining an application state for a detected one of a plurality of prescribed network applications from a received layer 2 data packet," by asserting:

> Hoffman teaches a plurality of switch ports 38a-38n, **which feed into forwarding logic 52**. Forwarding logic 52 ... in figure 4 ... teaches class logic 60. The merge logic 66 uses information from the class logic 60 and information output from the associated memory 42 to **instruct the input port 50i** what to do to properly forward the packet....

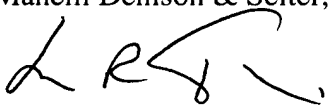
Hence, the Examiner's own argument demonstrates that the class logic of Hoffman is centrally located. Consequently the rejection of claim 10 should be reversed because Hoffman does not disclose or suggest that each network switch port includes a packet classifier.

For these and other reasons, the §102 rejection of claim 10 should be reversed.

For the reasons set forth above and in the Appeal Brief, it is clear that Appellant's claims 1 and 8-11 are patentable over the references applied. Accordingly the appealed claims 1 and 8-11 should be deemed patentable over the applied references. It is respectfully requested that this appeal be granted and that the Examiner's rejections be reversed.

Respectfully submitted,

Manelli Denison & Selter, PLLC



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